

WHAT IS CLAIMED IS:

1. A method of setting a compressive force in an assembly, comprising:
  - placing a film between first and second contacting surfaces in the assembly,  
the film having an optical property responsive to a pressure pattern  
between the first and second contacting surfaces;
  - providing the compressive force at an initial level to the first and second  
contacting surfaces to generate an initial pressure pattern;
  - removing the compressive force and removing the film from between the  
first and second contacting surfaces;
  - sensing the optical property to derive a sensed initial pressure pattern;
  - providing a stored setting controlling the compressive force; and
  - comparing the sensed initial pressure pattern to a reference pressure  
pattern and updating the stored setting to adjust the compressive  
force as a function of the comparing.
2. The method of Claim 1, wherein the optical property is sensed by an optical  
densitometer providing a densitometer reading.
3. The method of Claim 1 wherein the film has thickness that is less than 120  
micrometers.
4. The method of Claim 1, wherein the first contacting surface is a disc clamp  
surface, the second contacting surface is a disc surface, and the sensed initial  
pressure pattern diagnoses a surface defect.
5. The method of Claim 1, wherein the assembly includes a cavity and the first  
and second contacting surfaces seal the cavity.
6. The method of Claim 1, wherein the first contacting surface is a cover gasket  
surface, the second contacting surface is a housing surface, and fasteners provide  
the compressive force.

7. The method of Claim 1, wherein the first contacting surface is a printed circuit cable header gasket surface, the second contacting surface is a housing surface, and fasteners provide the compressive force.

8. The method of Claim 1, further comprising:

diagnosing a defect in at least one of the first and second contacting surfaces as a function of the sensed initial pressure pattern.

9. The method of Claim 1, wherein the first contacting surface is a label surface and the second contacting surface is a roller surface that is movable over the label surface.

10. The method of Claim 1, wherein the first contacting surface is a manufacturing fixture clamp surface, the second contacting surface is a disc drive housing surface, and a manufacturing fixture provides the compressive force.

11. The method of Claim 1, wherein the first contacting surface is a leak tester gasket surface, the second contacting surface is a housing surface, and a test fixture provides the compressive force.

12. An apparatus that sets a compressive force between first and second contacting surfaces in an assembly, comprising:

a film between the first and second contacting surfaces, the film having an optical property responsive to a pressure pattern between the first and second contacting surfaces;

a compressive force generator applying a compressive force at an initial level to the first and second contacting surfaces to generate an initial pressure pattern;

an optical sensor sensing the optical property to derive a sensed initial pressure pattern;

a stored setting controlling the compressive force; and  
a comparator receiving the sensed initial pressure pattern and a reference pressure pattern and updating the stored setting to adjust the compressive force as a function of the comparing.

13. The apparatus of Claim 12, wherein the optical sensor comprises an optical densitometer providing a densitometer reading.

14. The apparatus of Claim 12 wherein the film has thickness that is less than 120 micrometers.

15. The apparatus of Claim 12, wherein the first contacting surface is a disc clamp surface, the second contacting surface is a disc surface, and the sensed initial pressure pattern diagnoses a surface defect.

16. The apparatus of Claim 12, wherein the assembly includes a cavity and the first and second contacting surfaces seal the cavity.

17. The apparatus of Claim 12, wherein the first contacting surface is a cover gasket surface, the second contacting surface is a housing surface, and fasteners provide the compressive force.

18. The apparatus of Claim 12, wherein the first contacting surface is a printed circuit cable header gasket surface, the second contacting surface is a housing surface, and fasteners provide the compressive force.

19. The apparatus of Claim 12, wherein the first contacting surface is a label surface and the second contacting surface is a roller surface.

20. The apparatus of Claim 12, wherein the first contacting surface is a manufacturing fixture clamp surface, the second contacting surface is a disc drive housing surface, and a manufacturing fixture provides the compressive force.

21. The apparatus of Claim 12, wherein the first contacting surface is a leak tester gasket surface, the second contacting surface is a housing surface, and a test fixture provides the compressive force.

22. An apparatus that sets a compressive force between first and second contacting surfaces in an assembly, comprising:

- a film between the first and second contacting surfaces, the film having an optical property responsive to a pressure pattern between the first and second contacting surfaces;

- a compressive force generator applying a compressive force at an initial level to the first and second contacting surfaces to generate an initial pressure pattern; and

- a sensor sensing the optical property to derive a sensed initial pressure pattern; and

- means for storing a setting controlling the compressive force and for comparing the sensed initial pressure pattern to a reference pressure pattern and for updating the stored setting to adjust the compressive force as a function of the comparing.

23. The apparatus of Claim 22, wherein the assembly includes a cavity and the first and second contacting surfaces seal the cavity.

24. The apparatus of Claim 22, further comprising:

- diagnosing a defect in at least one of the first and second contacting surfaces as a function of the sensed initial pressure pattern.

25. The apparatus of Claim 22, wherein the optical property is sensed by an optical densitometer providing a densitometer reading.